

CLAIMS

1. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, the system (1) characterized by providing inside each of the bank automatic teller terminals (2) associated to a given set of ATMs, a Local Management Device (3) interconnected by means of a Local Server (4) to a Control, Monitoring and Management Center (5) responsible for the general management of the system and provided with a Safety Module (6); when the management of the system is local, Consoles are provided for Control, Monitoring and Management (7); in the rear portion of terminal (2) the command panel (8) is provided, equipped with an interface for communication with the Local Management Device (3) provided inside said terminal (2) as well as with the Control, Monitoring and Management Center (5) and with the Local Consoles for Control, Monitoring and Management (7); said command panel (8) is provided with keyboard (9), LCD display (10), magnetic card or smart card reader (11), fingerprint reader (12), and biometric data comparator using one or more biometric data of the user (iris, face, fingerprint, voice) previously recorded in a database for comparison at the moment of performing the operation desired by said user; internally, the command panel (8) is provided with a Cryptography Module (13) responsible for the transformation of the input data into low-level language (hardware) for future codification and decoding by the system (software); the system (1) is also provided with a unique physical switch for each set of ATM terminals, each unique switch being used in all ATM terminals (2) associated to that respective set, and the switches of the various sets are differentiated from each other in order to relate each one always to its respective set.
2. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,

characterized by the communication interface between the command panel (8) and the Local Management Device (3), the Control, Monitoring and Management Center (5) and the Local Consoles for Control, Monitoring and Management (7) allows the identification of the operator, the validation of that 5 identification, the identification of the operations to be performed, and the validation of those operations.

3. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claims 1 and 2, characterized by several manners are provided to validate the identity of the 10 operator, used together or separately, namely: reading a magnetic card accompanied by a password only known by the authorized operator, reading of a smart card, reading of fingerprint of the authorized operator, and comparison of biometric data.

4. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1, characterized by to start the operations of replenishment and/or bleeding (supply and/or removal of documents/money) of a bank automatic teller terminal (20, and/or general maintenance services, foresee the initial step of recording the operator, in which the operator uses the command panel (8) to 20 communicate with the Control, Monitoring and Management Center (5) and with the Local Consoles for Control, Monitoring and Management (7); the operator uses one or more manners of identification provided by the system to identify and, once the identification is confirmed, the Center (5) permits the operator to perform the operations.

25 5. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claims 1 and 4, characterized by providing in the next step the recording of the route of services, that is, the operations to be performed, in which benefiting from the

command panel (8) and still in communication with the Control, Monitoring and Management Center (5), or with the Local Consoles for Control, Monitoring and Management (7), the operator informs by codes the operations to be performed by him in the terminal following an operational map previously determined by

5 the system.

6. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claims 1, 4 and 5, characterized by providing the subsequent step of releasing password and opening the safe, in which once confirmed the route of services, the Center
10 (5) switches the Local Management Device (3) provided in terminal (2) to "Maintenance" mode, and the Safety Module (6) of said Center (5) releases a "temporary password" (a new secret combination) loading this new code in the safe lock of terminal (2); the Safety Module (6) informs the operator through display (10) of the command panel (8) the new valid secret combination; the
15 operator types the secret combination received in the safe lock opening the same.

7. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claims 1, 4, 5 and 6, characterized by providing a subsequent step of the ending operation,
20 in which once the operations are performed and after the operator closes the safe, the Safety Module (6) checks the sensors, the operator informs the Local Management Device (3) through the keyboard (9) of the command panel (8) the successful end of operations; the Safety Module clears the "temporary password" from the lock; also via keyboard (9), the operator informs the Device
25 (3) the codes of the operations performed (for example, replenishment of the safe, bleeding, maintenance services, etc.) and the operations performed are duly recorded, as well as when the same were performed, and by whom they were performed; the operator then receives the information on the next visit.

8. "CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING", according to claim 1, characterized by allowing only a given minimum number of terminals (2) to be opened at the same time.
- 5 9. "CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING", according to claim 1, characterized by providing after closing of any one of terminals (2) associated to a given branch a delay time period for opening any other terminal of that same branch.
- 10 10. "CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING", according to claim 1, characterized by providing opening intervals for performing the operations of replenishment and/or bleeding as well as technical assistance services (maintenance).
- 15 11. "CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING", according to claim 1, characterized by providing the determination of time schedules for performing the operations and technical services.
12. "CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED
- 20 IN SELF-SERVICE EQUIPMENT FOR BANKING", according to claim 1, characterized by providing local and remote management of terminals.
13. "CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING", according to claim 1, characterized by allowing alterations of configuration parameters, however,
- 25 permitting the validation thereof only after a pre-determined period of time (lack of validation).
14. "CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING", according to claim 1,

characterized by identifying the terminals that are being used and the ones that are free.

15. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
5 characterized by inhibiting the opening of all other terminals when during the operation of removal of deposits in a terminal there is the removal of the bill dispenser cassettes.
16. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1;
10 10 characterized by providing solutions for situations of communication with the network interrupted and interruption in the supply of electric power.
17. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
characterized by providing that the terminal is always opened by two persons
15 as an additional safety measure.
18. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
characterized by allowing tracking of operations.
19. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
20 characterized by allowing definition of different configurations according to the branches.
20. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
25 characterized by allowing the definition of different unlocking criteria according to the branches.
21. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,

- characterized by allowing that a branch possesses groups of terminals and that all of them are supplied simultaneously.
22. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
- 5 characterized by the command panel (8) informing online and in real time what is happening in each terminal associated to a given branch.
23. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
characterized by the panel (8) informing the occurrence of an assault.
- 10 24. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
characterized by the operational of the branch that establishes the procedures of terminals (2) with Center (5) and Consoles (7) is disclosed to help the own operators.
- 15 25. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
characterized by providing a contingency password (generated when installing the machine) that allows the off-line opening of the terminal.
26. **"CONTROLLING, MONITORING AND MANAGING SYSTEM APPLIED IN SELF-SERVICE EQUIPMENT FOR BANKING"**, according to claim 1,
- 20 characterized by allowing the exchange of information among several terminals (2) and between these and Center (5) and Consoles (7) to permit the off-line opening.